

**AMENDMENTS TO THE SPECIFICATION**

Please amend the Specification as follows, where current additions are noted with underlined text and current deletions are indicated by ~~strike through~~ or [[bracketed]] text.

**I-Amendments to Paragraph 7 (page 3, lines 5-8)**

“[0007] In some embodiments, the fullerene-based amino acids of the present invention comprise fullerene species that are endohedrally-doped with one or more dopant species. Such dopant species include, but are not limited to, radioactive species, non-radioactive species, ~~means~~ metals, gases, spin 1/2 nuclei, and combinations thereof.”

**II-Amendments to Paragraph 25 (page 4, line 25)**

“[0025] FIGURE ~~43~~ 12 depicts the statistical analysis of the cell viability evaluation.”

**III-Amendments to Paragraph 48 (page 10, lines 3-13)**

“[0048] Approximately 50 mg N-Ac-~~Fullerene~~ Fullerene-OMe was added to a Schlenk flask equipped with a magnetic stir bar. The solid was degassed under vacuum and then dissolved in 25 mL CH<sub>2</sub>Cl<sub>2</sub> and cooled to -10 °C under an argon atmosphere. Approximately 5 mL of 1M BBr<sub>3</sub> in CH<sub>2</sub>Cl<sub>2</sub> was added dropwise through a needle transfer with stirring. A dark brown precipitate resulted. Stirring continued at -10 °C for 1 hr and at 25 °C for 2 hr. The reaction was quenched by the careful dropwise addition of 25 mL of water. The solids remained between the interface of the water and the CH<sub>2</sub>Cl<sub>2</sub>. The solids were centrifuged out, then washed with 6 M HCl (10 mL x 2) with sonication. The residue was further washed with DI water (25 mL x 3). The decanted liquid portion was a clear yellow solution that indicated that the produced fullerene was soluble in H<sub>2</sub>O. The solubility is estimated to be about 0.1 mg/mL.”

**IV-Amendments to Lines Immediately Above Paragraph 53 (page 13, lines 3-4)**

“EXAMPLE [[7]] 6

Synthesis of Fullerene Peptide II (BAA-Glu-Glu-Glu-Glu-Gly-Gly-Gly-Ser-COOH) (SEQ ID NO. 1)”

**V-Amendments to Paragraph 53 (page 13, lines 5-18)**

“[0053] The couplings of first 7 residues after serine of fullerene peptide II (SEQ ID NO. 1) were carried out on an automated APEX 396 Multiple Peptide Synthesizer (Advanced ChemTech) under nitrogen flow. 430 mg (0.3 mM) Fmoc-serine-rink resin was used as solid phase. Each coupling uses 4-fold amino acid excess, and HBTU, HOBT as activators and DIEA as base in a 1:1:1:3 ratio. Fmoc ~~deprotection~~ ~~deprotection~~ was performed using 20% ~~perperidine~~ piperidine in DMF solution. After the deprotection of the eighth residue (Glu) was finished, one sixth of the resin was moved out to a 25 ml fritted glass tube, wherein the resin was swollen with DMF. A 3-fold excess of BocBAA was then dissolved in 9 ml DMF/DCM (2:1). The Boc BAA solution was first activated with PyBOP/HOBT/DIEA (1:1:1:3) for 2 minutes. The activated Boc BAA was mixed with the resin in the fritted glass tube, and shaken on an automated shaker for 1 day at room temperature. Then, the resin was washed thoroughly with DMF and CH<sub>2</sub>Cl<sub>2</sub> to remove unreacted ~~unreacted~~ FmocBAA. The final peptide was cleaved twice from the solid support using 10 ml TFA:TISP:H<sub>2</sub>O (98:1:1) for 4 hrs and 18 hrs. The crude fractions were washed with diethyl ether and lyophilized to remove TFA.”

**VI-Amendments to Line Immediately below Paragraph 53 (page 13, line 19)**

“EXAMPLE [[8]] 7”

**VII-Amendments to Paragraph 56 (page 14, lines 9-11)**

“[0056] For the statistical analysis, the data were compared with two-tailed, unpaired t-tests. P-values less than 0.05 were considered to be significant. Data are presented as mean  $\pm$  standard deviation. This statistical analysis is shown in FIGURE 12 ~~43~~.”